

INTERNATIONAL LIMITED WARRANTY

ARX Systems (ARX) warrants to the first purchaser of any ARX equipment that it is free from defects in materials and workmanship under normal use and service. ARX's sole obligation under this warranty shall be to provide, without charge, parts and labour necessary to remedy defects, if any, which appear within twelve (12) months from date of purchase, and for a further twelve (12) months supply parts only.

This is our only warranty. It does not cover finish or appearance items, burned voice coils, or if the equipment has been, in ARX's sole judgement:

- Subjected to misuse, abuse, negligence or accident;
- Repaired, worked on, or altered by persons not authorized by ARX;
- Connected, installed, adjusted or used for a purpose other than that for which it was designed. This includes running a speaker system with the ISC leads disconnected, or with a non-ARX crossover, or with the wrong processor.

This warranty gives you and us specific legal rights and you may also have other rights which may apply.

Warranty Service Procedure

Should it become necessary to have your equipment serviced under the terms of the warranty, please follow these steps:

1. Call your ARX distributor for a Return Authorization (RA) number;
2. **Carefully** repack the unit, in its original packaging where possible, including a note with a description of the problem, and a copy of the receipt showing date of purchase. Attach these to the actual unit itself. Don't forget to write your name and address clearly, and include a phone number where you can be contacted during normal business hours. Make it easy for our service technicians to contact you if they have a question. Also, use **plenty** of packing material - better to be safe than sorry.
3. Send the unit freight prepaid to ARX Systems, at the address given you with your RA number. We will pay the return freight when the serviced unit is returned to you.
4. We strongly recommend you insure the package. We can't fix it if it gets lost! Send it by UPS, Fedex, DHL or any similar service that can track the package. Parcel Post is *not* recommended

If Warranty Registration Card is missing, please write to ARX in the country of purchase, stating model and where purchased, or to ARX, PO Box 15, Moorabbin, Victoria 3189, Australia.

Or you can Email us at: info@arx.com.au

UniMIX™

Multi Channel Transformer Isolated AV/Podcast Mixer

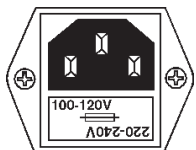
OWNER'S MANUAL



ARX Systems Pty Ltd, PO Box 15,
Moorabbin, Victoria 3189, Australia
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International Fax: +61-3 -9555 6747
On the Web: www.arx.com.au
Email: info@arx.com.au

! IMPORTANT - PLEASE READ THIS FIRST ⚡

THIS IS A DUAL VOLTAGE UNIT. IT IS ESSENTIAL THAT YOU CHECK THAT THE VOLTAGE ON THE FUSEHOLDER COVER BELOW THE AC CONNECTOR ON THE REAR OF THE CHASSIS IS SET CORRECTLY BEFORE CONNECTING IT TO AC POWER.



THIS IS SET FOR 100 V
AC TO 120 V AC
OPERATION



THIS IS SET FOR 220 V
AC TO 240 V AC
OPERATION

To change, pull fuseholder out and rotate 180°, then push in again. Do not insert power cable into unit until voltage has been correctly set. Do not connect power cable to AC power until voltage has been correctly set



RoHS

CE N1819

Manufactured in Australia

Complies with 89/336/EEC EMC Directive, amended by 92/31/EEC and 93/68/EEC; meets the following standards: EN 55013 : 1990, Sections 3.2 and 3.5, EN 55020 : 1988, Sections 4.3, 5.4, 6.2, 7.0, 8.0., and EN 60950 : 1994 Low Voltage Directive
Complies with Australian Standard AS/N25 1053

Our policy is one of continuous improvement, and therefore designs may change without notice. However, unless otherwise stated, specifications will always equal or exceed those previously given.

WARNING SYMBOLS USED ON THIS EQUIPMENT



This symbol is intended to alert you to the presence of important operating instructions contained in this owner's manual



This symbol is intended to alert you to the presence of uninsulated dangerous voltage within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock.



This symbol indicates that a Slow Blow fuse is used in this equipment. Replace with same type and value only



CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN



TO PREVENT ELECTRIC SHOCK, DO NOT REMOVE COVER OR BACK OF UNIT
NO USER-SERVICEABLE PARTS INSIDE
REFER SERVICING TO QUALIFIED PERSONNEL

WARNING

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.

ATTENTION

RISQUE DE CHOC ÉLECTRIQUE - NE PAS OUVRIR

Specifications

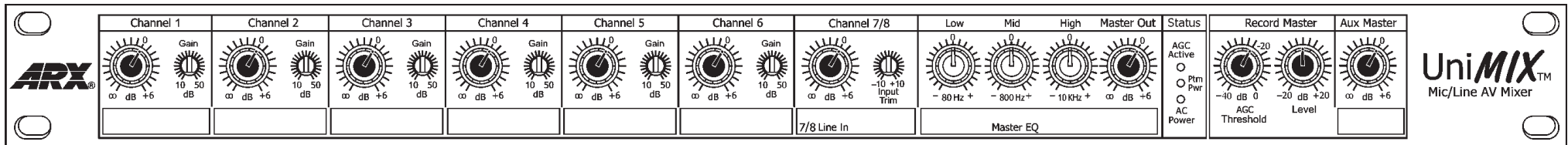
Input Impedance	Mic 4K Ohms Balanced Line 22K Ohms Unbalanced
Input Gain	Microphone Variable 10 dB to 50 dB with rear trim control Mic / Line switch -20dB
Output Level	(Max) +21dB
AGC Threshold	-40 to 0 dB
AGC Output Gain	-20 to +20 dB
Phantom Power:	+48VDC switchable on all Microphone Inputs
Output Signal/Noise	-90dB A weighted, all inputs @ Unity, Master @ Unity
Dynamic Range	115dB
Master Output EQ	Low 100Hz 15dB Cut/Boost Mid 800Hz 15dB Cut/Boost Bell, Broad Q High 10KHz 15dB Cut/Boost
Master Outputs	Electronically Balanced XLR 300 ohms Line Level Balanced Output Connectors Male XLR: Pin 1 Ground, Pin 2 +, Pin 3 -
Frequency Response	20Hz-20 KHz ± 1dB
Distortion (@ unity gain)	Below 0 .01%, 100 Hz to 10KHz
Input Connector Type	Mic/Line - Amphenol Female XLR Hi Z Input - Phono (RCA type)
Output Connector Type	Amphenol Male XLR
Recording Output Connector Type	Amphenol Male XLR

Complete online documentation is available on the ARX website:
www.arx.com.au/unimix.htm

Specific queries can be emailed to the factory at info@arx.com.au

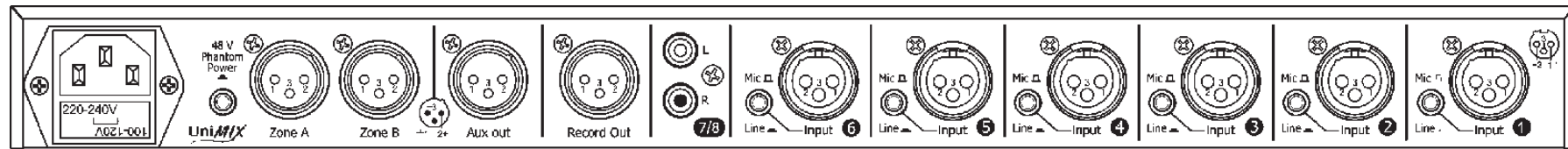


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Front Panel Connectors

- Individual Level controls for each input channel - infinity through 0db to +6dB
- Individual Gain Controls for each Input channel, 10 to 50 dB
- Stereo Line In Level and Trim control
- Master Output 3 way EQ and Level control
- System Status LEDs
- Recording Master Level control and Automatic Gain Control Threshold trim
- Auxiliary Master Output control
- Marker panel for labelling input channels



Rear Panel Connectors and Controls

- 6x Female XLR Balanced Inputs wired Pin 1 Audio Ground, Pin 2 +, Pin 3 –
- RCA type Stereo Line Inputs
- Transformer isolated Balanced XLR Recording Output: Pin 1 Not Connected, Pin 2 +, Pin 3 –
- Left and Right Male XLR Balanced Outputs: Pin 1 Audio Ground, Pin 2 +, Pin 3 –
- Transformer isolated Auxiliary Master XLR Output: Pin 1 Not Connected, Pin 2 +, Pin 3 –
- Global Mic input Phantom Power switch
- Removable IEC type AC input connector, with inbuilt fuse

Architectural Specifications

The mixer shall be mounted into a standard 1 RU steel chassis with extruded anodised aluminium front panel.

It shall have six input channels switchable to Mic or Line, with one Level control per input. Each level control shall provide full attenuation through to +6dB of gain. An associated Gain control shall have 10dB to 50 dB Gain

There shall also be a stereo Line input channel, with RCA type phone connectors. It shall have its own Level control, and an associated –10 to +10 dB Input Trim control.

On the rear panel, all Mic/Line Inputs shall be electronically balanced 3 pin female XLR connectors.

There shall be a Master Level control with three way EQ on the front panel, and the Master outputs shall be electronically balanced 3 pin male XLR output connectors. There shall also be a single transformer balanced XLR Auxiliary Master output with associated front panel Level control.

There shall also be a Recording Output Master control on the front panel, with associated Automatic Gain Control. This output shall be a transformer balanced male XLR connector.

48V DC Phantom Power shall be available on all Mic Inputs via a rear panel switch Input Headroom shall be +24dB, and Maximum Output Level shall be +24dB.

Output Signal/Noise @ unity gain shall be -90dB A weighted, Master @ unity, Frequency Response shall be 20Hz-20KHz ±1dB.

Distortion @ unity gain, shall be below .01% 100Hz to 10KHz.

AC power shall be switchable 100 to 120V or 220 to 240V AC, connected to the unit via a standard three pin IEC connector, with built-in fuse and voltage change switch.

The unit shall be the ARX UniMIX

Latest information updates always available on the comprehensive ARX website:
www.arx.com.au

Connecting the UniMIX

Like so many good ideas, setting up your UniMIX is very straightforward.

! Firstly, connect the unit to AC power.

⚡ Please Note: This is a dual voltage unit. It is essential that you check that the voltage on the fuseholder cover below the AC connector on the rear of the chassis is set correctly before connecting it to AC power. See Page 2 for more details.

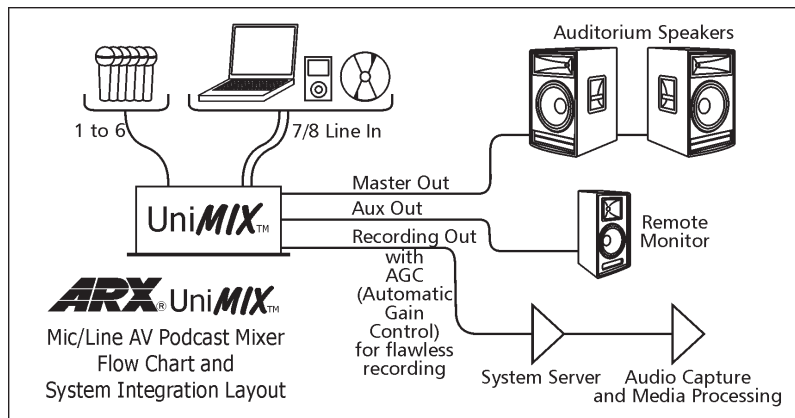
Your XLR Balanced Mic (or Line) connectors plug into the rear panel Input sockets of Channel 1 to 6. Input Gain for each channel can be adjusted with the Gain controls next to each of the Level controls on the Front Panel. 48V DC Phantom power to drive condenser microphones is available globally by pressing the rear panel switch near the Master Outputs. A status LED on the front panel indicates it is active.

Stereo Line Input Channel 7/8 has dual RCA input connectors and -10 to $+10$ dB adjustable input trim.

These inputs all mix down to 3 sets of outputs:

- 1 : The dual XLR Master Outputs connect to the power amplifiers for the speaker system, and have 3 way EQ and a Master Level control on the front panel. Note that the EQ only affects the speaker system.
- 2 : The Recording Output is a balanced male XLR, and it connects to the audio inputs of the computer sound card. This is transformer isolated to avoid ground loop hums and other noises being transferred to the recording. The Level is controlled by the Recording Master control on the front panel. The Threshold of the Automatic Gain Control (AGC) should be adjusted until audio peaks stay under 0dB on the recording software. A status LED on the front panel indicates when the AGC is active.
- 3 : A single XLR on the rear panel is also a transformer isolated Auxiliary audio output, and is controlled by the Aux Master control on the front panel.

The front panel AC Power LED indicates that the unit is connected to AC mains power.



Introduction

Thank you for choosing this UniMIX Active Microphone/Line Splitter. As with all ARX equipment, it has undergone extensive factory calibration and 'burn in' before shipping. To ensure continued trouble free use, please familiarise yourself with the contents of this manual before using the UniMIX.

About the UniMIX

These days, more and more educational institutions such as colleges, universities and high schools are expected to provide downloadable recordings - podcasts - of lectures and classes, for students to access at all times on the local area network. These recordings are typically taken from the classroom/lecture theatre sound system and saved to a computer in real time.

The UniMIX from ARX does all this and more: Six Balanced XLR Mic / Line input channels with individual level controls, plus a stereo RCA jack Line In channel.

Each Mic/Line input has infinity to $+6$ dB of Level available on the front panel, as well as a 10 to 50 dB Input Gain control. The stereo Line Input channel has a -10 to $+10$ dB Level Trim control, to allow accurate matching of any line level signals.

On the rear panel, each of the 6 electronically balanced Mic inputs can be switched to Line if required via individual switches.

For the room system, the UniMIX has 2 Balanced XLR outputs, with 3 way EQ and its own Master Level control.

The Recording Output is a Balanced XLR connector, transformer isolated to prevent ground loops and associated noise.

Automatic Gain Control

The Recording Master also has its own Automatic Gain Control circuitry. Specially tailored parameters ensure that levels remain constant, irrespective of Mic placement and user technique.

The result is a consistent level for the recording, with greater intelligibility, removing the need for fulltime monitoring and the risk of overloading and distortion.

The final Master control feeds the main signal to a transformer isolated Balanced XLR Auxiliary Output. This can be used for future expansion, remote monitoring or for feeding a wireless transmitter or other device.

Global Phantom Power is available on all Microphone inputs with a rear panel switch with associated front panel status LED.

Wide Dynamic Range

Internally, careful attention to the signal path design, using precision components found in high-end mixing consoles, has resulted in a unit with very wide dynamic range. The UniMIX has enough headroom to cope with the hottest line signal, and better than digital noise specifications